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By: *Lewis J. Kreisler*
Lewis J. Kreisler
Reg. No. 38522

Date: 1-13-06

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s):	John C. Bell, et al.	Atty. Ref.:	18041B-PCTUS
Appl. No.:	10/551,103	Group Art Unit:	Not Assigned
Filed:	September 26, 2005	Examiner:	Not Assigned
For:	MUTANT VESICULAR STOMATITIS VIRUSES AND USES THEREOF		

* * * * *

January 13, 2006

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

INFORMATION DISCLOSURE STATEMENT

Pursuant to 37 CFR 1.56, 1.97 and 1.98, the attention of the Examiner is directed to the documents listed on the enclosed Form PTO-1449. A copy of each listed document is enclosed.

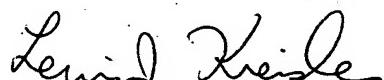
In addition, applicants enclose an International Search Report, dated July 26, 2004, in connection with corresponding International Patent Application No.

PCT/CA2004/000460. Each of the documents listed in the Search Report is listed in the Form PTO-1449 enclosed herewith.

Inventor(s): Bell
Application No.: 10/551,103
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It is believed that no fee is required in connection with the filing of this Statement. If any fee is required, the Commissioner is hereby authorized to charge the amount of such fee to Deposit Account No. 50-1677.

Respectfully submitted,



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Substitute for form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 1 of 5

Complete if Known

Application Number	10/551,103
Filing Date	September 26, 2005
First Named Inventor	John C. Bell
Art Unit	Not Assigned
Examiner Name	Not Assigned
Attorney Docket Number	18041B-PCTUS

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (<i>if known</i>)			
		US- 4,215,051	07-29-1980	Schroeder, et al.	
		US- 4,769,330	09-06-1988	Paoletti, et al.	
		US- 6,022,726	02-08-2000	Palese, et al.	
		US- 6,110,461	08-29-2000	Lee, et al.	
		US- 6,296,845	10-02-2001	Sampson-Johannes, et al.	
		US- 6,440,422	08-27-2002	Sutter, et al.	
		US- 6,468,544	10-22-2002	Egorov, et al.	
		US- 6,451,323	09-17-2002	Garcia-Sastre, et al.	
		US- 6,497,873	12-24-2002	Whitt, et al.	
		US- 6,531,123	03-11-2003	Chang	
		US-			

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T ⁶
		Country Code ³ -Number ⁴ -Kind Code ⁵ (<i>if known</i>)				
		WO96/03997	02-15-1996	MacLean, et al.		
		WO97/26904	07-31-1997	Brown, et al.		
		WO00/62735	10-26-2000	Roberts, et al.		
		WO01/19380	03-22-2001	Bell, et al.		
		WO04/022716	03-18-2004	Whitt, et al.		
		WO99/18799	04-22-1999	Roberts, et al.		

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Sheet	2	of	5	Attorney Docket Number	18041B-PCTUS

NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			
		Petersen, et al., "The Matrix Protein of Vesicular Stomatitis Virus Inhibits Nucleocytoplasmic Transport When it is in the Nucleus and Associated with Nuclear Pore Complexes", Molecular and Cellular Biology, Vol. 20, No. 22, November 2000, pages 8590-8601.			
		Desforges, et al., "Different host-cell shutoff strategies related to the matrix protein lead to persistence of vesicular stomatitis virus mutant on fibroblast cell", Virus Research, Vol. 76, No. 1, July 2001, pages 87-102.			
		von Kobbe, et al., "Vesicular Stomatitis Virus Matrix Protein Inhibits Host Cell Gene Expression by Targeting the Nucleoporin Nup98", Molecular Cell, Vol. 6, November 2000, pages 1243-1252.			
		Desforges, et al., "Matrix Protein Mutations Contribute to Inefficient Induction of Apoptosis Leading to Persistent Infection of Human Neural Cells by Vesicular Stomatitis Virus", Virology, Vol. 295, No. 1, March 2002, pages 63-73.			
		Jayakar, et al., "Identification of Two Additional Translation Products from the Matrix (M) Gene That Contribute to Vesicular Stomatitis Virus Cytopathology", Journal of Virology, Vol. 76, No. 16, August 2002, pages 8011-8018.			
		Stojdl, et al., "Exploiting tumor-specific defects in the interferon pathway with a previously unknown oncolytic virus", Nature Medicine, Vol. 6, No. 7, July 2000, pages 821-825.			
		Balachandran, et al., "Oncolytic Activity of Vesicular Stomatitis Virus is Effective against Tumor Exhibiting Aberrant p53, Ras, or Myc Function and involves the Induction of Apoptosis", Journal of Virology, Vol. 75, No. 7, April 2001, pages 3474-3479.			
		Petersen, et al., "Multiple vesiculoviral matrix proteins inhibit both nuclear export and import", Proceedings of the National Academy of Science of the United States of America, Vol. 98, No. 15, July 2001, pages 8590-8595.			
		Stojdl, et al., "VSV strains with defects in their ability to shutdown innate immunity are potent systemic anti-cancer agents", Cancer Cell, Vol. 4, No. 4, October 2003, pages 263-275.			
		Ahmed, et al., "Ability of the Matrix Protein of Vesicular Stomatitis Virus to Suppress Beta Interferon Gene Expression is Genetically Correlated with the Inhibition of Host RNA and Protein Synthesis", Journal of Virology, Vol. 77, No. 8, April 2003, pages 4646-4657.			

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		Specht, et al., "Dendritic Cells Retrovirally Transduced with a Model Antigen Gene are Therapeutically Effective against Established Pulmonary Metastases", The Journal of Experimental Medicine, Vol. 186, No. 8, October 1997, pages 1213-1221.	
		Terstegen, et al., "The Vesicular Stomatitis Virus Matrix Protein Inhibits Glycoprotein 130-Dependent STAT Activation ", The Journal of Immunology, Vol. 167, 2001, pages 5209-5216.	
		Her, et al., "Inhibition of Ran Guanosine Triphosphatase-Dependent Nuclear Transport by the Matrix Protein of Vesicular Stomatitis Virus", Science, Vol. 276, June 1997, pages 1845-1847.	
		Lu, et al., "Regulation of the Promoter Activity of Interferon Regulatory Factor-7 Gene", The Journal of Biological Chemistry, Vol. 275, No. 41, October 2000, pages 31805-31812.	
		Zhang, et al., "IRF-7, a New Interferon Regulatory Factor Associated with Epstein-Barr Virus Latency", Molecular and Cellular Biology, Vol. 17, No. 10, October 1997, pages 5748-5757.	
		Wathelet, et al., "Virus Infection Induces the Assembly of Coordinately Activated Transcription Factors on the IFN- β Enhancer in Vivo", Molecular Cell, Vol. 1, March 1998, pages 507-518.	
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		Novella, et al., "Large-Population Passages of Vesicular Stomatitis Virus in Interferon-Treated Cells Select Variants of Only Limited Resistance", Journal of Virology, Vol. 70, No. 9, September 1996, pages 6414-6417.	
		Yuan, et al., "Inhibition of Host Transcription by Vesicular Stomatitis Virus Involves a Novel Mechanism that is Independent of Phosphorylation of TATA-Binding Protein (TBP) or Association of TBP with TBP-Associated Factor Subunits", Journal of Virology, Vol. 75, No. 9, May 2001, pages 4453-4458.	
		Lin, et al., "Multiple Regulatory Domains Control IRF-7 Activity in Response to Virus Infection", The Journal of Biological Chemistry, Vol. 275, No. 44, November 2000, pages 34320-34327.	

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		Bell, et al., "Getting Oncolytic Virus Therapies off the Ground", Cancer Cell, Vol. 4, July 2003, pages 7-11.	
		Ferran, et al., "The Vesicular Stomatitis Virus Matrix Protein Inhibits Transcription from the Human Beta Interferon Promoter", Journal of Virology, Vol. 71, No. 1, January 1997, pages 371-377.	
		Zhang, et al., "Interferon Regulatory Factor 7 Mediates Activation of Tap-2 by Epstein-Barr Virus Latent Membrane Protein 1", Journal of Virology, Vol. 75, No. 1, January 2001, pages 341-350.	
		Stojdl, et al., "The Murine Double-Stranded RNA-Dependent Protein Kinase PKR is Required for Resistance to Vesicular Stomatitis Virus", Journal of Virology, Vol. 74, No. 20, October 2000, pages 9580-9585.	
		Steinhoff, et al., "Antiviral Protection by Vesicular Stomatitis Virus-Specified Antibodies in Alpha/Beta Interferon Receptor-Deficient Mice", Journal of Virology, Vol. 69, No. 4, April 1995, pages 2153-2158.	
		Jayakar, et al., "Mutation in the PPPY Motif of Vesicular Stomatitis Virus Matrix Protein Reduce Virus Budding by Inhibiting a Late Step in Virion Release", Journal of Virology, Vol. 74, No. 21, November 2000, pages 9818-9827.	
		Racaniello, et al., "Cloned Poliovirus Complementary DNA is Infectious in Mammalian Cells", Science, Vol. 214, November 1981, pages 916-918.	
		Roberts, et al., "Recovery of Negative-Strand RNA Viruses from Plasmid DNAs: A Positive Approach Revitalizes a Negative Field", Virology, Vol. 247, 1998, pages 1-6.	
		Necomb, et al., "In Vitro Reassembly of Vesicular Stomatitis Virus Skeletons", Journal of Virology, Vol. 41, No. 3, March 1982, pages 1055-1062.	
		Blondel, et al., "Role of Matrix Protein in Cytopathogenesis of Vesicular Stomatitis Virus", Journal of Virology, Vol. 64, No. 4, April 1990, pages 1716 -1725.	

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		Lyles, et al., "Potency of Wild-type and Temperature-Sensitive Vesicular Stomatitis Virus Matrix Protein in the Inhibition of Host-Directed Gene Expression", Virology, Vol. 225, 1996, pages 172-180.	
		Francoeur, et al., "The Isolation of Interferon-Inducing Mutants of Vesicular Stomatitis Virus with Altered Viral P Function for the Inhibition of Total Protein Synthesis", Virology, No. 160, 1987, pages 236-245.	
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		Lambright, et al., "Oncolytic Therapy Using a Mutant Type-1 Herpes Simplex Virus and the Role of the Immune System", The Society of Thoracic Surgeons, Vol. 68, 1999, pages 1756-1762.	
		DiDonato, et al., "A cytokine-responsive IκB Kinase that activates the transcription factor NF-κB", Nature, Vol. 388, August 1997, pages 548-554.	
		Morin, et al., "Preferential Binding Sites for Interferon Regulatory Factors 3 and 7 Involved in Interferon-A Gene Transcription", J. Mol. Biol., Vol. 316, 2002, pages 1009-1022.	
		Ikeda, et al., "Oncolytic Virus Therapy of Multiple Tumors in the Brain Requires Suppression of Innate and Elicited Antiviral Responses", Nature Medicine, Vol. 5, No. 8, August 1999, pages 881-887.	
		Todo, et al., "Systemic Antitumor Immunity in Experimental Brain Tumor Therapy using a Multimutated, Replication-Competent Herpes Simplex Virus", Human Gene Therapy, Vol. 10, November 1999, pages 2741-2755.	
		Fisher, et al., "Polymer-coated Adenovirus Permits Efficient Retargeting and Evades Neutralising Antibodies", Gene Therapy, Vol. 8, 2001, pages 341-348.	
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